# AHalf Century

ver the last 50 years, major changes have occurred in all aspects of life, including drastic changes to the state of human health. A striking fundamental change has been human life expectancy, which has increased worldwide by more than 40%, from an average of 46 years in the 1950s to 65 years in 1995. The gap in life expectancy between rich and poor countries has decreased from 25 years in 1955 to 13.3 years in 1995.

The World Health Organization (WHO), which has played a major role in advancing international health conditions, is celebrating its fiftieth anniversary this year. Recognizing that diseases and public health problems do not acknowledge international borders, the WHO was formed to provide leadership in addressing international health issues. The WHO constitution was signed on 7 April 1948 by 61 governments "for the purpose of cooperation among themselves and with others to promote the health of all people."

Today, the WHO works to carry out four main functions: to give worldwide guidance in the field of health, to set global standards for health, to cooperate with governments in strengthening national health programs, and to develop and transfer appropriate health technology, information, and standards. The WHO stresses that its definition

of health is "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity."

Since 1948, the number of member states of the WHO has grown to 190. The WHO is headquartered in Geneva, Switzerland, and has six regional offices in Brazzaville, Republic of the Congo; Washington, DC; Alexandria, Egypt; Copenhagen, Denmark; New Delhi, India; and Manila, Philippines.

#### A History of Health

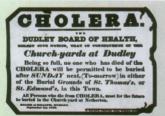
The most well-known accomplishment attributable to the WHO is the global eradication of smallpox, which occurred in 1980. "The global crusade to eradicate smallpox was a tremendous success that couldn't have happened without the leadership of the WHO," says Phillip Landrigan, chairman of the department of community and preventive medicine at the Mount Sinai Medical Center in New York City, which is a collaborating center with the WHO.

The WHO began eradication efforts in 1967 when smallpox was estimated to affect 15 million people annually, causing disfigurement and blindness and killing 2 million per year. The WHO estimates that if smallpox had not been eradicated, 350 million people would have been affected in the last 20 years, with 40 million of them dying. The eradication not only decreased human suffering, but

also resulted in financial savings.
The WHO estimates that the
United States saves its entire investment in
the eradication program every month because
the cost of protective measures is saved.

Another major WHO success is the Expanded Programme on Immunization, developed in 1974 with the goal of immunization for all children worldwide. The program administers vaccinations to children for diphtheria, pertussis, tetanus, measles, poliomyelitis, and tuberculosis. Today, the program reaches almost 90% of children worldwide, a significant increase from the average of 5% who received vaccinations 25 years ago.

The WHO has also worked extensively to control and eliminate other diseases, resulting in drastic declines in the occurrence of the tropical diseases vaws and onchocerciasis (river blindness). The WHO has made significant progress in the global control of malaria, although there are still many areas in which malaria continues to be a problem. In addition, the WHO has been successful in reducing the death rate due to cholera from more than 50% in the 1950s to 1.8% today. Several diseases have been targeted by the WHO for eradication or elimination in the near future, including poliomyelitis, leprosy, neonatal tetanus, guinea worm disease, and Chagas' disease.



The International Health Conference in New York approves the constitution of the World Health Organization (WHO).

Regulations. Louse-borne typhus and relapsing fever are dropped from the regulations, leaving only cholera, plague, smallpox, and yellow fever.

1969

The International Sanitary Regulations are renamed the International Health

1946

1830

Cholera overruns Europe. 1892

The International Sanitary Convention, restricted to cholera, is adopted. 1919

The League of Nations is created and is charged with taking steps in matters of international concern for the prevention and control of disease, among other tasks. The Health Organization of the League of Nations is set up in Geneva, Switzerland.

1948

The WHO constitution comes into force on April 7 (now marked as World Health Day each year) with the signature of the 26th of the 61 member states. Later, the First World Health Assembly is held in Geneva with delegations from the 53 governments that by then were members.



Credits: Corbis Bettmann, PAHO/Gilles Collette

## 1948 1998 WORLD HEALTH ORGANIZATION

of Health

In the last decade, the WHO undertook an unprecedented effort to stop the spread of HIV and AIDS worldwide. The WHO first worked to convince world leaders of the urgency in halting the imminent spread of AIDS. The organization then worked with leaders to strengthen the AIDS programs of member states, focusing on assessment and screening technologies. The WHO continues in the fight against AIDS as a cosponsor of the United Nations Programme on AIDS.

The WHO also works to prevent the spread of disease through the promotion of health programs worldwide, such as programs to combat malnutrition. WHO centers around the world train doctors and nurses from developing countries to improve the state of health in their homelands. The WHO participates in efforts to bridge worldwide research on biological and pharmaceutical products in order to set international standards.

#### Focus on Environment

The WHO has made several strides in addressing issues of environmental health in recent years. For example, the WHO developed *Guidelines for Drinking Water Quality*, a three-volume publication that evaluates inorganic constituents, industrial chemicals, pesticides, and disinfectants in drinking water worldwide. The WHO has also issued similar guidelines for air quality.

In 1980, only 40% of people in developing countries had access to safe drinking water and only 20% had sanitary means of disposal for human waste. To address these public health problems, the WHO initiated the International Drinking Water Supply and Sanitation Decade from 1981 through 1990. By 1990, these percentages doubled, giving 1.6 billion access to water and 750 million proper sanitation. During this time, the WHO also established the Water Supply and Sanitation Collaborative Council, which continues to search for solutions to international water supply and sanitation problems.

In 1980, the WHO, the International Labour Office, and the United Nations Environment Programme established the International Programme on Chemical Safety (IPCS), which has worked to address the public health problem of widespread chemical use by utilizing a network of over 70 participating institutions. The IPCS has assessed about 1,000 food additives and contaminants, as well as 220 pesticide residues and 70 veterinary drug residues in food. Over 200 chemicals have been fully evaluated in environmental health criteria documents. In addition, the IPCS has completed more than 130 poisons information monographs and over 1,000 international chemical safety cards that provide information about worker safety in several languages. The IPCS also addresses

improvement of methodologies for risk assessment, and provides an international platform to address emerging global environmental health problems.

#### The Future of the WHO

An important task facing the WHO is determining the organization's future actions. Despite past triumphs, there are many public health obstacles to overcome, including the threat of reemerging diseases such as tuberculosis and new diseases such as mad cow disease. Current preparations to direct future WHO actions include the development of a World Health Report and a Health for All by the Year 2000 (HFA) strategy.

In 1977, the WHO developed the global HFA strategy, aimed at attaining a level of health for all people that would allow them to lead socially and economically productive lives. This goal has not been reached due to problems such as slow socioeconomic development, lack of political commitment, and inappropriate use of resources, according to the WHO. But the organization maintains that the goal is still part of its vision. The World Health Assembly in May 1998 reviewed the strategy, and a revised policy document, *Health for All in the 21st Century*, is expected later this year.

As the WHO enters a new half-century, its leadership has changed hands. For the first

The Thirtieth World Health Assembly sets its sights on achieving by the end of the century the level of health that will permit all people to lead a socially and economically productive life, a development that will lead to the Health for All by the Year 2000 campaign.

A global commission certifies the world-wide eradication of smallpox, with the last known natural case having occurred in 1977.



The United Nations General Assembly expresses concern over the spread of the AIDS pandemic. The WHO launches its Global Programme on AIDS.



Fiftieth anniversary of the signing of the WHO constitution.

998

1974

The WHO launches its Expanded Programme on Immunization to protect children from poliomyelitis, measles, diphtheria, whooping cough, tetanus, and tuberculosis.



1981

The Global Strategy for Health for All by the Year 2000 is adopted, and is endorsed by the United Nations General Assembly, which urges concerned international organiza199

The Children's Vaccine Initiative is launched with UNICEF, the UNDP, the World Bank, and the Packetellar Foundation



Credits: PAHO/Armando Waak, Borah High School, PAHO/Armando Waak, PAHO/Armando Waak

time in 50 years, the WHO will be led by a woman—Gro Harlem Brundtland, former prime minister of Norway, who was elected director-general of the WHO on 13 May 1998. Brundtland follows Hiroshi Nakajima, who was widely criticized as an ineffective leader, and under whose leadership the WHO lost prestige due to mismanagement and corruption.

Brundtland, who is from Oslo, Norway, earned a medical degree from the University of Oslo and a masters of public health from Harvard University, where she studied pollution and other environmental health problems. She spent 10 years as a physician and scientist in the Norwegian public health system focusing on child and maternal health. In 1974, she was appointed minister of the environment.

In 1981, Brundtland was appointed prime minister of Norway at the age of 41, becoming the first woman and youngest person ever to hold the office. She later served two more terms. In 1983, the United Nations Secretary General asked Brundtland to develop and chair the World Commission on Environment and Development. As chair of the commission from 1984 through 1987, Brundtland promoted the concept of sustain-

able development. The commission's recommendations led to the 1992 Earth Summit held in Rio de Janeiro, Brazil.

WHO leaders hope that, as director-general, Brundtland will revitalize the organization with her political, medical, and activist experience, as well as her enthusiasm. "WHO can and must change. It must become more effective, more accountable, more transparent, and more receptive to a changing world," Brundtland said during a speech following her election.

Brundtland intends to focus the WHO on four areas: rolling back and eradicating communicable diseases, fighting noncommunicable diseases, helping countries develop sustainable health systems, and being a better advocate for health issues. Two immediate projects she is implementing are a program called Roll Back Malaria and a fight against the global increase in tobacco consumption.

Many hope that Brundtland's conviction that health and the environment are linked will result in stronger environmental health programs. "There is a strong cadre of dedicated and knowledgeable environmental health professionals at the WHO, and under the new leadership of Dr. Brundtland, we can expect that these WHO experts will be rein-

vigorated to be responsive to the goals the WHO has for environmental health," says Bernard Goldstein, director of the Environmental and Occupational Health Sciences Institute in Piscataway, New Jersey. Goldstein says an important role of the WHO in the future will be communicating the importance of human health in sustainable development.

Eric Chivian, director of the Center for Health and the Global Environment at Harvard University, says he would like to see Brundtland place the WHO at the center of international discussion on the environment's effect on health. "The human health dimensions of environmental change need to be further understood," Chivian says. "When policy makers understand the connections between health and the environment, they will support legislation for environmental protection."

The fiftieth anniversary year of the WHO continues to be marked by celebrations of past accomplishments and anticipation of future achievements under a new dynamic leader. Says Landrigan, "This is a bright moment for the WHO."

Brandy E. Fisher

### Children's Environmental Health Cancer in Children



Volume 106, Supplement 3, June 1998

Environmental Health Perspectives publishes monographs on important environmental health topics and an annual review issue as supplements to the monthly journal. The June supplement (Volume 106, Supplement 3) focuses on children's environmental health issues. Topics of asthma and cancer are highlighted from the perspectives of the basic researcher as well as the policymaker.

Back issues of Environmental Health Perspectives Supplements are available for purchase. See http://ehis.niehs.nih.gov or call 1-800-315-3010 for ordering information. (Volume discounts are available for bulk orders.)

Note: Print copies of this supplement are sold out but it is available through online subscription.